

What Is Claimed Is:

1. An objective, which is assembled from a number of individual housing structures, optical elements being arranged in each housing structure, wherein at least one first housing structure is provided with seats on which one or more further housing structures are adjusted and are connected to said first housing structure.

2. The objective according to claim 1, wherein at least one of said seats are provided for the purpose of adjusting and mounting of at least one optical element or optical subassembly in said first housing structure.

3. The objective according to claim 1, wherein the objective is a projection objective in microlithography for producing semiconductor components.

4. The objective according to claim 1, wherein a number of optical axes being formed by said housing structures.

5. The objective according to claim 1, wherein said seats are provided on external surfaces of said first housing structure.

6. The objective according to claim 5, wherein provided as said external surfaces is at least one first seat that runs at an angle of ($<$) less than 30° , in particular at least approximately parallel, to a first optical axis.

7. The objective according to claim 6, wherein provided as said further external surfaces are two mutually parallel

seats which lie at an angle of ($<$) less than 30° , in particular at least approximately parallel, to a further optical axis.

8. The objective according to claim 6, wherein said first seat is arranged at least approximately perpendicular, at an angle of ($>$) greater than 60° to the mutually parallel seats.

9. The objective according to claim 7, wherein a fourth seat is provided at an angle to said first seat and to the two mutually parallel seats.

10. The objective according to claim 9, wherein said fourth seat is arranged at an angle of $45^\circ \pm 15$ to the first seat and to said two mutually parallel seats, and wherein arranged on said fourth seat is a deflecting mirror for producing a third optical axis for a second housing structure.

11. The objective according to claim 8, wherein said second housing structure is provided with at least one seat on which one or more further optical elements arranged in substructures, or subassemblies of optical elements are adjusted and connected to said second housing structure.

12. The objective according to claim 10, wherein said second housing structure is provided with at least one further seat, wherein said at least one further seat connects said first housing structure with said second housing structure.

13. The objective according to claim 12, wherein the junction between said first housing structure and said second housing structure is formed by the seats of said first hous-

ing structure and of said second housing structure.

14. The objective according to claim 12, wherein said second housing structure is provided with at least two further seats, one seat running perpendicular to the seat, and the further seat running perpendicular to the further seat and to the seat via which said second housing structure is connected to said first housing structure.

15. A projection exposure machine for producing semiconductor components, comprising an objective according to claim 1.

16. The projection exposure machine for producing semiconductor components according to claim 15, for using light with a wavelength of less than 360 nm.